

FILE COPY

Receipt

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Attorney Docket No. 107823.129)

In re Application of:

MADIYALAKAN et al.

Serial No. 09/376,604

Filed: August 18, 1999

For: THERAPEUTIC COMPOSITIONS THAT  
ALTER THE IMMUNE RESPONSE



) Examiner: Not Yet Assigned

) Art Unit: 1642

)

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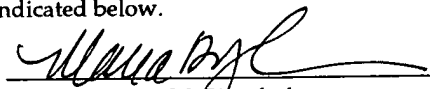
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**CERTIFICATE OF FIRST CLASS MAILING UNDER 37 CFR §1.8**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Office of Initial Patent Examination, Customer Service Center, Assistant Commissioner for Patents, Washington, DC 20231 on the date indicated below.

Date: April 26, 2000

  
Maria M. Bjornholm

\*\*\*\*\*

Assistant Commissioner for Patents

Washington, D.C. 20231

Attention: Office of Initial Patent Examination  
Customer Service Center

**TRANSMITTAL LETTER**

Dear Sir:

Enclosed herewith for filing in the above-referenced patent application are the following documents:

1. Letter Requesting Correction of Filing Receipt;
2. Copy of Filing Receipt;
3. Copy of Page 1 of the Application as Filed on August 18, 1999;
4. Copy of Filing Receipt with Requested Corrections;
5. Certificate of First Class Mailing; and

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MAY 12 2000  
TECH CENTER 1600/2900

U.S.S.N. 09/376,604

Page Two

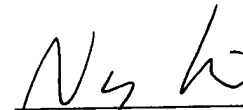
6. Return Postcard.

Dated: April 26, 2000

Hale and Dorr LLP  
60 State Street  
Boston, MA 02109  
Tel: (617) 526-6000  
Fax: (617) 526-5000

Respectfully submitted,

HALE AND DORR LLP

A handwritten signature in dark ink, appearing to read 'Nancy Chiu', is written over a horizontal line.

Nancy Chiu, Ph.D.

Reg. No. 43,545

Agent for Applicants

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Attorney Docket No. 107823.129)

In re Application of:

MADIYALAKAN et al.

Serial No. 09/376,604

Filed: August 18, 1999

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) Examiner: Not Yet Assigned

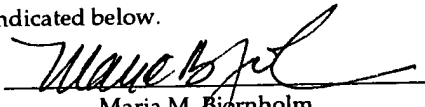
) Art Unit: 1642

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Date: April 26, 2000

  
Maria M. Bjørnholm

\*\*\*\*\*

Assistant Commissioner for Patents  
Washington, D.C. 20231  
**Attention: Office of Initial Patent Examination  
Customer Service Center**

**LETTER REQUESTING CORRECTION OF FILING RECEIPT**

Dear Sir:

It is respectfully requested that a corrected Filing Receipt for the above-referenced patent application be issued, as the Filing Receipt received by the applicants (copy enclosed) incorrectly lists the Continuing Data as Claimed by Applicant.

The Continuing Data as Claimed by Applicant should read as follows:

THIS APPLICATION IS A CIP OF PCT/IB96/00461 05/15/1996  
AND A CIP OF 08/877,302 06/16/1997  
AND A CIP OF 09/094,598 06/15/1998 ABN  
AND A CIP OF 09/152,698 09/02/1998  
AND A CIP OF PCT/IB99/01114 06/15/1999

U.S.S.N. 09/376,604  
Page Two

A copy of page 1 of the Application, as filed on August 18, 1999, is enclosed to support this correction.

In addition to the correction detailed above, Applicants respectfully request correction of the Attorney Docket Number. The Attorney Docket Number should read as follows:

107823.129

Enclosed is a copy of the Filing Receipt with the corrected information in the Continuing Data as Claimed by Applicant and the Attorney Docket Number sections of the document.

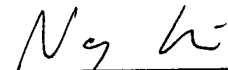
No fee is due. However, please charge any fees which may be due or credit any overpayment associated with this correspondence to our Deposit Account No. 08-0219.

If there are any questions, please call the undersigned at the telephone number indicated below.

Dated: April 26, 2000

Hale and Dorr LLP  
60 State Street  
Boston, MA 02109  
Tel: (617) 526-6000  
Fax: (617) 526-5000

Respectfully submitted,  
HALE AND DORR LLP



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Nancy Chiu, Ph.D.  
Reg. No. 43,545  
Agent for Applicants

**FILING RECEIPT**

\*OC000000005009036\*

**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**Address: ASSISTANT SECRETARY AND  
COMMISSIONER OF PATENT AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/376,604	08/18/1999	1642	5331	A52023.2US	11	240	10

Nancy Chiu Ph D  
Hale and Dorr LLP  
60 State Street  
Boston, MA 02109

Date Mailed: 03/24/2000

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

**Applicant(s)**

RAGUPATHY MADIYALAKAN, EDMONTON, CANADA;  
ANTOINE A. NOUJAIM, EDMONTON, CANADA;  
BIRGIT SCHULTES, LEXINGTON, MA ;  
RICHARD BAUM, HARGESHEIM, GERMANY;

**Continuing Data as Claimed by Applicant**

THIS APPLICATION IS A CIP OF PCT/IB96/00461 05/15/1996  
AND A CIP OF 09/094,598 06/15/1998 ABN  
AND A CIP OF 09/152,698 09/02/1998  
AND A CIP OF PCT/IB99/01114 06/15/1999

**Foreign Applications**

If Required, Foreign Filing License Granted 09/02/1999

**Title**

THERAPEUTIC COMPOSITIONS THAT ALTER THE IMMUNE RESPONSE

**Preliminary Class**

424



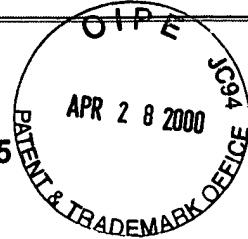
Data entry by : BLACK, NICOLE

Team : OIPE

Date: 03/24/2000



**LICENSE FOR FOREIGN FILING UNDER  
Title 35, United States Code, Section 184  
Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 36 CFR 1.53(d). This license is not retroactive.

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**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

**PLEASE NOTE the following information about the Filing Receipt:**

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 600 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents  
Office of Initial Patent Examination  
Customer Service Center  
Washington, DC 20231

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# THERAPEUTIC COMPOSITIONS THAT ALTER THE IMMUNE RESPONSE



5 This application is a continuation-in-part of International Application No.  
PCT/IB96/00461, filed May 15, 1996; a continuation-in-part of U.S. Serial No.  
08/877,302 filed June 16, 1997; a continuation-in-part of U.S. Serial No. 09/094,598  
filed June 15, 1998; a continuation-in-part of U.S. Serial No. 09/152,698 filed  
9 September 2, 1998, and a continuation-in-part of PCT/IB99/01114 filed June 15, 1999.  
The teachings of each of these applications is hereby incorporated by reference.

## Technical Field

13 The invention concerns methods and compositions having increased  
therapeutic effect by altering the immunogenicity of the active component without  
decreasing the active component's antigenicity. Typically, a beneficial therapeutic  
effect is derived from altering the state of the immune system, and for some  
17 embodiments of the invention, e.g., cancer immunotherapy, immunogenicity is  
induced, activated, or increased. The invention also concerns methods and  
compositions for stimulating a host's immune response, particularly for the treatment  
of cancer. The methods and compositions according to the invention use binding  
21 agents such as antibodies to generate an immune response to a pre-determined  
antigen.

## Background Art

25 In vertebrates, the mechanisms of natural and specific immunity cooperate  
within a system of host defenses, the immune system, to eliminate foreign invaders.  
The hypothesis that the immune system ought to be able to recognize tumors and  
thus could be recruited in the fight against cancer has been a driving force behind  
29 outstanding efforts of many immunologists. This approach is attractive because of the